

## ABSTRACT

A modem includes a base unit for transmitting a data signal, and a communication card which receives the data signal from the base unit over a wireless medium and which performs echo canceling on the data signal. The base unit is in communication with a telephone line and receives an original signal from the telephone line. The base unit generates an RF modulated signal based on the original signal. The base unit includes a transmitter for transmitting the data signal. Circuitry in the base unit receives the original signal from the telephone line and generates a combined data signal from the original signal and echo signals and maintains a peak voltage of the combined signal which is within the linear amplification region of the transmitter.

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